What is claimed is:

1.   A method of improving connectivity among topology subnets using a common

connection network, comprising steps of:

    determining, by a border node located at a border of a particular one of the topology

subnets, one or more links between the border node and a neighboring border node located at the

border of a different one of the topology subnets;

    creating a list of the determined links;

    determining, when a first session endpoint resides in the particular one of the topology

subnets, whether the first session endpoint has connectivity to a global virtual routing node

("GVRN"), and adding link information to the created list to represent this connectivity if so; and

        forwarding the created list to the neighboring border node.

2.   The method according to Claim 1, further comprising the steps of:

    receiving, at the neighboring border node, the created list;

    when a second session endpoint resides in the different one of the topology subnets,

performing steps of:

        determining whether the second session endpoint has connectivity to the GVRN

or to another GVRN, and adding link information to the created list to represent this connectivity

if so; and

        using the created list to select a data transmission path between the first session

endpoint and the second session endpoint; and

        when the second session endpoint does not reside in the different one of the topology

11   subnets, performing steps of:

12   determining, by the neighboring border node, one or more links between the

13   neighboring border node and a different border node located at the border of another one of the

14   topology subnets; and

15   forwarding the created list to the different border node.

1   3.   The method according to Claim 2, wherein the step of using the created list to select a

2   data transmission path further comprises the step of checking to see if both the first session

3   endpoint and the second session endpoint have connectivity to a single GVRN, and if so,

4   determining whether selecting the GVRN as a node in the data transmission path results in an

5   optimal data transmission path.

1   4.   A global virtual routing node ("GVRN") for interconnecting multiple topology subnets

2   using a common connection network which extends beyond each of the topology subnets,

3   comprising:

4   connections which are defined from one or more nodes in the topology subnets to the

5   GVRN;

6   means for representing the connections as links between physical nodes in the topology

7   subnets; and

8   means for selectively analyzing the represented connections along with the links between

9   physical nodes when selecting a data transmission path through the multiple topology subnets,

10   wherein the data transmission path spans the common connection network if the connections to

11   the GVRN are selected.

1   5.   A system for improving connectivity among topology subnets using a common

2   connection network, comprising:

3   means for determining, by a border node located at a border of a particular one of the

4   topology subnets, one or more links between the border node and a neighboring border node

5   located at the border of a different one of the topology subnets;

6   means for creating a list of the determined links;

7   means for determining, when a first session endpoint resides in the particular one of the

8   topology subnets, whether the first session endpoint has connectivity to a global virtual routing

9   node ("GVRN"), and adding link information to the created list to represent this connectivity if

10   so; and

11   means for forwarding the created list to the neighboring border node.

1   6.   The system according to Claim 5, further comprising:

2   means for receiving, at the neighboring border node, the created list;

3   when a second session endpoint resides in the different one of the topology subnets,

4   means for:

5   determining whether the second session endpoint has connectivity to the GVRN

6   or to another GVRN, and adding link information to the created list to represent this connectivity

7   if so; and

8   using the created list to select a data transmission path between the first session

9   endpoint and the second session endpoint; and

10   when the second session endpoint does not reside in the different one of the topology

11   subnets, means for:

12   determining, by the neighboring border node, one or more links between the

13   neighboring border node and a different border node located at the border of another one of the

14   topology subnets; and

15   forwarding the created list to the different border node.

1   7.   The system according to Claim 6, wherein the means for using the created list to select a

2   data transmission path further comprises means for checking to see if both the first session

3   endpoint and the second session endpoint have connectivity to a single GVRN, and if so,

4   determining whether selecting the GVRN as a node in the data transmission path results in an

5   optimal data transmission path.

1   8.   A computer program product for improving connectivity among topology subnets using a

2   common connection network, the computer program product embodied on one or more computer

3   readable media and comprising:

4   computer readable program code means for determining, by a border node located at a

5   border of a particular one of the topology subnets, one or more links between the border node

6   and a neighboring border node located at the border of a different one of the topology subnets;

7   computer readable program code means for creating a list of the determined links;

8   computer readable program code means for determining, when a first session endpoint

9   resides in the particular one of the topology subnets, whether the first session endpoint has

10   connectivity to a global virtual routing node ("GVRN"), and adding link information to the

11   created list to represent this connectivity if so; and

12   computer readable program code means for forwarding the created list to the neighboring

13   border node.

1   9.   The computer program product according to Claim 8, further comprising:

2   computer readable program code means for receiving, at the neighboring border node, the

3   created list;

4   when a second session endpoint resides in the different one of the topology subnets,

5   computer readable program code means for:

6   determining whether the second session endpoint has connectivity to the GVRN

7   or to another GVRN, and adding link information to the created list to represent this connectivity

8   if so; and

9   using the created list to select a data transmission path between the first session

10   endpoint and the second session endpoint; and

11   when the second session endpoint does not reside in the different one of the topology

12   subnets, computer readable program code means for:

13   determining, by the neighboring border node, one or more links between the

14   neighboring border node and a different border node located at the border of another one of the

15   topology subnets; and

16   forwarding the created list to the different border node.

1   10.   The computer program product according to Claim 9, wherein the computer readable

2   program code means for using the created list to select a data transmission path further comprises

3   computer readable program code means for checking to see if both the first session endpoint and

4   the second session endpoint have connectivity to a single GVRN, and if so, determining whether

5   selecting the GVRN as a node in the data transmission path results in an optimal data

6   transmission path.